

## ORIGINAL ARTICLE

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# Active social insurance

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## Abstract

The paper argues that a comprehensive *activation strategy* is called for – in both unemployment and disability insurance – to minimize the conflict between income insurance and work incentives and to prevent the economic crisis from causing a long-lasting decline in labor force participation. A review of recent empirical evidence, particularly from the Scandinavian countries, indicates that “mild” activation requirements effectively counteract moral hazard problems in social insurance. The paper also argues that the distinction between unemployment and disability is blurred, and that both temporary and permanent disability insurance programs should be designed to encourage and support the use of remaining (partial) work capacity.

**Keywords:** Activation, Moral hazard, Disability insurance, Unemployment insurance, ALMP

**JEL codes:** H55, J65

## 1. Introduction

At some level, there is probably an inescapable tradeoff between the aims of equality and social security, on the one hand, and efficient incentives for self-sufficiency, on the other. Although the quantitative results differ across different empirical studies, there is by now a broad agreement among researchers that more generous social insurance, *ceteris paribus*, yields less effort to prevent and escape from unemployment and inactivity. This means that policy makers need to strike a balance between two highly legitimate, but conflicting, aims. At the end of the day, this is intrinsically a political choice, which must be made on the basis of values. But scientific knowledge can be used to design institutions that *minimize* the efficiency-equity tradeoff.

The present paper discusses how a strategy of *activation* can be applied to reduce the conflict between generous insurance and appropriate incentives for being self-sufficient. Activation can play this role because it removes the “leisure component” of social insurance, and hence makes social insurance less attractive for individuals whose problem is low work motivation rather than (or in addition to) lack of job opportunities. It may thus substitute for, e.g., “strict” maximum duration limitations as a moral-hazard-containing device, which in the context of a comprehensive welfare state in any case may appear as a time-inconsistent – and thus empty – threat. Properly designed, activation requirements may also imply that otherwise idle labor resources are employed for useful purposes during waiting/search periods – at least to some extent – and that the prospects for (again) obtaining regular work are improved. But

activation also entails costs – in the form of administrative resources, potential lock-in-effects, and non-intended market distortions (e.g., if public sector work crowds out private-sector work).

Over the past decades, there has been a trend in many countries toward making unemployment insurance (UI) and social assistance (SA) programs more focused on activation. Activation requirements have come in many forms – from counseling and job-search-monitoring to educational programs and job-training. Although the empirical research is less than unanimous in its evaluation of individual effects of actually participating in these activities, there is now overwhelming evidence indicating that activation reduces moral hazard problems, and that threats of activation have similar effects as threats of outright benefit termination. But, so far, the activation strategy has primarily been limited to unemployment insurance and social assistance programs. Disability insurance (DI) programs have to a large extent been sheltered from this development, probably because these programs have been designed to provide benefits to individuals with serious health problems who presumably have lost their ability to work. Work-ability is not a dichotomous characteristic, however; it is a matter of degree more than of kind. The distinction between “unemployment” and “disability” is thus anything but clear-cut, and the classification of a given non-employment spell as one or the other is often determined more by the design of the insurance institutions than by the nature of the problem at hand. A likely side-effect of making one part of the system thriftier or more activation oriented may therefore simply be that insurance costs are shifted over to another part of the system. This also implies that threats of benefit termination lose credibility, as well-informed economic agents realize that alternative – less demanding – options are available.

A proper strategy for minimizing the conflict between equity and efficiency thus has to take the design of the whole social insurance system into account. In the present paper, I review the existing evidence on the impacts of alternative moral-hazard-containing instruments, as viewed from a welfare state perspective. While there are a large number of empirical studies on the impacts of maximum duration constraints and/or activation strategies in unemployment insurance systems, the evidence regarding similar strategies in disability insurance systems is much more limited.

Based on the available evidence, I argue that there is a strong case for limiting the duration of “*passive*” income support periods, both in unemployment and disability insurance programs. But I also point out that maximum duration constraints need not be “definitive” in order to achieve the intended threat/encouragement effect – they have been shown to bite even when they are “soft”, in the sense that the termination of passive benefits is accompanied by (lower or more strongly conditioned) follow-on benefits or by opportunities to participate in paid activation. The idea of activation in DI programs is that health problems/disabilities often reduces a person’s work capacity, but rarely eliminates it completely; and consequently that there are significant “hidden” labor supply resources among DI claimants. Offering income insurance in the form of the opportunity to earn income through (at least some) work rather than through a pure income transfer implies a more attractive DI program for those who really want to work, while it at the same time entails less moral hazard problems. And, as I show below, existing empirical evidence indicates both that work tends to be a healthy activity for disabled individuals and that policies aimed at maintaining some work through

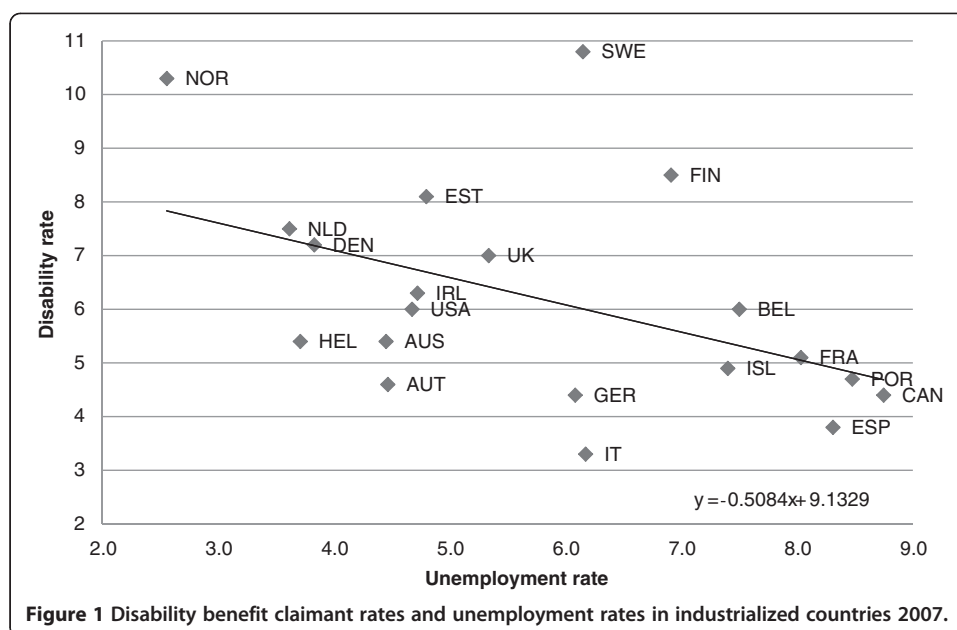
periods of temporary disability significantly improve subsequent employment and earnings prospects.

The paper proceeds as follows: In the next section, I briefly discuss the evidence on the overlap of unemployment and disability insurances. I then examine the empirical evidence on activation – in unemployment as well as disability insurance programs. Thereafter, I discuss the implications of important structural trends and cyclical fluctuations for the optimal blend of welfare and workfare policies. Finally, I draw some conclusions regarding the role that activation can play in balancing the objectives of appropriate social insurance and sufficient work-incentives.

## **2. The substitutability of unemployment and disability insurance**

While unemployment insurance programs are designed to provide temporary income support to jobless individuals who are able and willing to accept new employment, disability insurance programs offer support to individuals who are presumably not able work due to serious health problems. Disability insurance may be temporary or permanent, depending on the nature of the health impairment. Most industrialized countries have public insurance programs covering both short-term income losses due to sickness absence from work, medium-term medical/vocational rehabilitation processes, and permanent disability; see, e.g., OECD (2003; 2009; 2010). It is not always obvious whether an individual's difficulty of finding or keeping work should be considered a disability problem or an unemployment problem. A person may be disabled in relation to some jobs and unemployed in relation to others (and perhaps "unwilling" in relation to yet other jobs). Health impairments may imply that it is difficult to find regular employment even when most of the work-capacity remains intact. It is probable that eligibility for disability insurance is evaluated relative to perceived employment opportunities. In some countries, the disability insurance legislation even explicitly prescribes that employment opportunities are to be taken into account in the assessment of eligibility; see Bratsberg *et al.* (2010a). Hence, there is a large "grey area" between these two social insurance programs, implying that country-specific institutional particularities related to, e.g., eligibility/certification regulations, replacement levels, duration constraints, and activation requirements determine the allocation of cases between the two.

Figure 1 presents the rates of unemployment and disability insurance claims for 20 OECD countries in 2007, i.e., just before the financial crisis. It illustrates that economies with low unemployment rates tend to have high disability rates and vice versa. Taking the descriptive pattern in this graph literally, it appears that a one percentage point reduction in unemployment "costs" half a percentage point increase in disability insurance claims. Given the major differences in social insurance institutions, it is admittedly a questionable exercise to compare disability insurance rates across industrialized countries. However, existing empirical evidence based on within-country studies also convincingly points to a significant degree of substitution between unemployment- and disability insurance program utilization; see Black *et al.* (2002), Autor and Duggan (2003), Rege *et al.* (2009), and Bratsberg *et al.* (Bratsberg *et al.* 2010a). The probability of becoming a disability benefit claimant rises sharply in response to (exogenous) job loss. And although the positive relationship between layoff and disability risk to some



extent reflects a genuine adverse health effect of job loss, the impacts identified in the empirical literature are simply too large to make this plausible as the *sole* explanation. Based on Norwegian administrative data merged with data on mass layoffs identified from bankruptcy court proceedings, Bratsberg *et al.* (2010a), for example, find that men's risk of claiming permanent disability benefits over the next few years more than doubles in response to a job loss. And conditional on having been laid off, the probability of becoming a disability benefit claimant rises steeply with the local rate of unemployment.

Further evidence on the remaining work capacity among disability insurance claimants is provided by research demonstrating that the recipients' labor supply behavior is sensitive with respect to economic incentives. Markussen *et al.* (2011), for example, show that for Norwegian workers on time-limited sick pay, the return-to-work hazard rises sharply just before sick pay exhaustion (after one year), in a similar fashion to what has frequently been shown for UI recipients (Card *et al.* 2007). Kostøl and Mogstad (2012) present evidence indicating that even persons who are accepted into a DI program as permanently and 100% disabled adjust their labor supply in response to changed work incentives. When the Norwegian DI program was reformed such that claimants were allowed to keep more of their benefits if their incomes were topped up with labor earnings, the recipients demonstrated a considerable capacity and willingness to work. In the U.S., there has been a related strand of research focusing on the behavior of *rejected* DI applicants. This research has exploited elements of randomness in the assignment of judges responsible for the screening process, implying that some applications are accepted or rejected because the applicants by chance were assigned particularly lenient or strict judges. An important finding from this literature is that there is a significant residual work capacity among DI applicants, though future earnings are typically lower than before the incidence of sickness/disability; see French and Song (2009), Maestas *et al.* (2011), and Von Wachter *et al.* (2011).

The point I wish to make by referring to this literature is neither that disability insurance claims tend to be illegitimate in countries with high disability rates, nor that genuinely disabled individuals are deliberately camouflaged as unemployed in countries with low disability rates. My point is simply that there is no clear distinction between these two states, and that the allocation of individuals to UI and DI therefore to a large extent depends on the characteristics of the social insurance institutions. Acknowledging the potential “overlap” in unemployment and disability insurances may also represent a key to our understanding of the apparent rise in disability that has occurred in many industrialized economies – despite general improvements in health conditions and physical work environments; see, e.g., Autor and Duggan (2003), OECD (2009), and Bratsberg *et al.* (2010a).

### **3. Activation in unemployment insurance**

While there is a broad agreement among researchers that the generosity of UI insurance does affect job search behavior and choosiness, the sizes of the estimated effects vary widely across different studies – within as well as across countries; see, e.g., Krueger and Meyer (2002), Card *et al.* (2007), and Røed *et al.* (2008) for recent overviews. The lack of consensus estimates across studies from different countries is not really a mystery, given the substantial variation in UI-systems and other institutional features, e.g., related to disability insurance programs. Causal impacts of particular features of a UI institution have to be evaluated within the context of the broader institutional set-up to which they belong. For example, one would expect UI generosity to be more important for search behavior, the less substitutability there is between UI and other social insurance programs.

There are basically four parameters that policy makers manipulate in order to contain moral hazard problems in their unemployment insurance systems: i) the replacement ratio, ii) the maximum duration of benefit claims, iii) monitoring and sanction practices, and iv) activation strategies. We know that reduced replacement ratios, shorter maximum UI durations, tighter monitoring and more frequent sanctions (in terms of benefit cuts) will encourage/force some job seekers to move faster into employment; see, e.g., Fredriksson and Holmlund (2006) for a review of the literature and Abbring *et al.* (2005), Boone *et al.* (2009), and Svarer (2011) for recent evidence on the impacts of monitoring and sanctions. However, we also know that these policies potentially have some undesirable side-effects, such as forcing liquidity-constrained job-seekers to accept suboptimal job matches (Chetty, 2008). There is also evidence that the quality of accepted matches declines as the job seeker approaches UI exhaustion (Gaure *et al.*, 2012). Strict sanction practices and “hard” duration constraints also inevitably push some job seekers – and their families – into poverty. The risk of causing poverty rather than employment obviously increases in times of economic crisis. Consequently, some countries tend to make their unemployment insurance systems more generous in bad times than in good times, particularly by extending the maximum duration; see OECD (2011).

An alternative to benefit cuts and sanctions is to make unemployment insurance more strongly oriented towards activation, this way eliminating (or at least reducing) the “leisure component” of unemployment insurance. Since Black *et al.* (2003) published their

paper on the “threat effects” of reemployment services, researchers have worked hard to identify the “ex ante effects” of activation; i.e., the effects on the current job search behavior of the *risk* of soon being required to participate in activation in order to maintain unemployment benefits. For unemployed job seekers, “activation” typically takes the form of (compulsory) counseling, monitored job search, or participation in an active labor market program (ALMP). The latter comprises training courses, employment subsidies, temporary work in the community, and in some cases support for obtaining additional education.

The consensus view now seems to be that the prospect of imminent activation has some of the same moral-hazard-containing effects as the prospect of imminent benefit loss: It stimulates search effort and discourages pickiness, and it virtually eliminates claims that were illegitimate in the first place (in the sense that the claimants had no intention of accepting a job, or had already got one, but wanted to exploit their unemployment insurance first). It is interesting to note that the economics literature in some sense has made a U-turn at this point. In the 1980s and early 1990s, the typical view was that activation in the form of an active labor market program (ALMP) would be seen by agents as more attractive than open unemployment, making them *less eager* to avoid and escape from unemployment; see, e.g., Calmfors and Lang (1995). One reason for this was probably that the ALMPs at that time sometimes were more focused on pastime than on work, often involving hobby-related activities, such as decorative painting or various handicrafts.<sup>1</sup> Today, the ALMPs are much more focused on employment and labor-demand-driven skills-upgrading. Since UI claimants constitute a highly heterogeneous group, it is also likely that preferences vary: For some claimants, activation makes unemployment more attractive, while for others it makes unemployment less attractive. It seems reasonable, however, that moral hazard problems are more acute when people are attracted to paid leisure than when they are attracted to activation. Hence, activation may be viewed as a strategy to encourage persons who are not sufficiently motivated for work to *self-select* out of the UI system. In this sense, activation serves as a *screening* device along the lines suggested by Besley and Coate (1992); and also *deters* potential future claimants from selecting a lifestyle implying a high risk of welfare dependency.<sup>2</sup> That some workers are also encouraged to “overinvest” in publically provided skills-upgrading through ALMP participation may in this context be viewed as a problem of secondary importance, although there is a risk that educational ALMPs undermine incentives for making appropriate human capital investments in the first place.

While it is well documented that transition rates out of unemployment rise sharply around the time of UI termination (whether it is due to exhaustion or a sanction) – both to employment and to non-employment – it is less clear how the sizes and natures of these effects depend on “what comes after UI”. Røed and Westlie (2012) use a major reform of the Norwegian UI system in 1997, which extended maximum UI duration and *reduced* the overall level of activation – to investigate this issue.<sup>3</sup> Their somewhat surprising answer is that the what-comes-after-question is empirically unimportant. “Soft” constraints – offering slightly reduced follow-on-benefits or participation in (paid) activation programs after exhaustion of initial entitlements – have essentially the same impact on job search behavior prior to exhaustion as “harsh” constraints offering no further income support. Hence, for the threat effect, the



“harshness” of the constraint seems to be of secondary importance relative to the fact that there indeed *is* a constraint. This result may of course be directly related to the existence of a multiple-layer welfare state in Norway. Job seekers in danger of losing all benefit entitlements would typically be offered alternative assistance if needed, e.g., in the form of disability programs (vocational rehabilitation) or social assistance. However, it is interesting to note that the predicted fall in average unemployment duration associated with a reduction in the length of the UI period through the imposition of a soft constraint is sizeable, i.e., around half a day for every week’s reduction. This effect is of the same magnitude as that reported by Card and Levine (2000) on the basis of an extended benefit program in New Jersey, USA. This similarity is intriguing, given that for most job-seekers, the soft constraint imposed in Norway does not really affect the absolute duration limit of UI benefits at all; it only reduces the time until some form of activity is demanded.

The Danish UI system is specifically designed in terms of relatively short “passive” income insurance periods, after which activation is the rule of the game. This is sometimes referred to as the “right-and-duty-principle” (or the “mutual obligation principle”). The idea is that an unemployed job seeker has the *right* to assistance in the form of income insurance, placement services, and (if necessary) skills upgrading, but at the same time a *duty* to participate in ALMP’s and other activities when offered. If the claimant is below 30 years, the “passive” period is limited to 3 months; for older job seekers it is 9 months. Existing evidence indicates that many job seekers find work as they approach the end of the “passive” period.<sup>4</sup> Geerdsen and Holm (2007), for example, who take advantage of legislative changes in the lengths of the passive and active periods to identify their causal effects, show that the threat effect of activation is considerable. According to their estimates, a 50 percentage point increase in the risk of program enrolment results in an approximately 50 percent increase in the hazard out of unemployment. Rosholm and Svarer (2008) report similar findings, although they also identify a tendency for the threat effects to decrease with the duration of unemployment.<sup>5</sup>

Further evidence on the “power of soft constraints” is provided by Røed *et al.* (2008), presenting results from a comparative unemployment duration analysis based on Norwegian and Swedish administrative register data from 1999 and 2000. In these years, the maximum UI benefit period in Norway was three years, and there was little focus on activation (see above). In Sweden, by contrast, the maximum UI benefit period was only 60 weeks, and activation was used extensively as a work-test, and also applied as a paid alternative for job seekers with exhausted benefit entitlements. Hence, the Swedish 60 week limitation was clearly a soft one, in the sense that alternative income options were made available for job seekers whose benefit entitlements had been exhausted. Røed *et al.* (2008) show that while there was strong and monotone negative duration dependence in the employment hazard for Norwegian job seekers in this period, it tended to be relatively stable for Swedish job seekers, with a significant rise in transition rates around the time of passive benefit exhaustion. And the magnitude of the latter rise was similar in size to those identified by Røed and Westlie (2012) based on Norwegian data only.

Basing the social insurance system on the idea of offering *paid activity* rather than *paid leisure* obviously has the consequence that a significant fraction of the workforce

is actually “activated” from time to time. That may (or may not) be costly, depending, of course, on the type of activity offered and the output it generates. There is by now a large – and still rapidly expanding – literature on the impacts of participation in ALMPs; see Kluve *et al.* (2007) and Card *et al.* (2010) for recent reviews. The evidence is mixed. Traditional training programs tend to perform quite poorly, in the sense that it is hard to provide convincing evidence for a significant positive impact on subsequent employment or earnings. Programs aiming at subsidized placement in regular jobs perform somewhat better. However, there are few experimental studies in this area – and hardly any with results that can be generalized very far beyond the particular context from which they were generated. And although many of the non-experimental studies are based on state-of-the-art methodologies, it is typically hard to ascertain with absolute certainty that the results really capture the causal effects of interest, and not the unobserved sorting into the various types of programs. In any case, program effects need to be evaluated relative to some alternative – and the alternative to activation is highly dependent on the setup of a country’s social insurance institutions in general.

Sweden has been a sort of pioneer in the use of active labor market programs; hence it may be of particular interest to examine the experiences generated from that country. Evaluation studies based on data from the late 1980’s and the 1990’s – summarized by, e.g., Calmfors *et al.* (2001) – tended to convey a rather dismaying message; ALMP apparently did little to help unemployed job seekers back to work. Later studies have, however, provided a more encouraging picture; see Forslund and Vikström (2011). Possible explanations for this shift are, *inter alia*, that the overall “activity stance” (the fraction of job seekers that are activated) has been scaled a bit down, making it possible to substitute quality for quantity, and that an improved economic situation has ensured the existence of a demand for labor that the programs can aim at satisfying. Denmark has now taken over the role as the country with the strongest emphasis on activation in its UI system. But, while there is quite unanimous evidence in support of a “threat effect” of the activation strategy in Denmark, the evidence on the impacts of actual participation are mixed. Evaluation of private sector employment programs tend to come out with favorable effects, whereas training programs and public sector employment programs mainly have no effects; see, e.g., Kluve *et al.* (2007, Chapter 6).

Norwegian evidence also indicates that there are some favorable effects of ALMP participation, in terms of shorter unemployment durations and higher subsequent employment propensity; see, e.g. Røed and Raaum (2006) and Røed and Westlie (2012). A recent paper by Gaure *et al.* (2012) evaluates effects of Norwegian ALMPs on a number of outcomes simultaneously – including the quality of a subsequent job match – and compares the estimated impacts with reported administrative costs. Since the authors use a multivariate hazard rate model to study all transitions (with nonparametric modeling of unobserved heterogeneity), they are also in a position to characterize the sorting into ALMP. The results indicate that there is strong negative selection into ALMP. Abstracting from any effects of actual ALMP participation, the likelihood that an unemployed job seeker actually ends up in employment is on average 8.4 percentage points higher for non-participants than for participants, and their earnings are around 11 percent higher, given that they do find a job. The estimated *causal* effects of participation are generally small. ALMP participation implies a higher likelihood of around 2 percentage points (from 47% to 49% on average) that an unemployment spell eventually



ends with a transition to a job. Moreover, it raises the quality of the job slightly, as captured by a 2.5% increase in expected earnings. On the other hand, it also implies that it takes approximately one month longer to find the job. The latter is the so-called lock-in-effect, reflecting that some participants reallocate their efforts from regular job search to a time-consuming ALMP. Thus, there are pros and cons, but the gain in expected earnings caused by the small rises in employment propensity and earnings are too small to compensate for the slower transition.<sup>6</sup> Moreover, there are administrative costs associated with organizing the programs. Hence, unless the period of actual participation is of some value in itself, a cost-benefit analysis is bound to come out with a negative result. Since many of the programs involve fulltime work, it is indeed reasonable to assume that the period of participation is of some value. And the authors calculate that the condition for a five-year cost-benefit analysis to come up with a positive result is that these employment programs generate a net positive value corresponding to at least 35% of the participants' predicted earnings in the market (conditional on getting a job). If programs are properly designed, this does not seem unrealistic.

The most important caveat to a "narrow" cost-benefit analysis of actual program participation is that one has to take into account impacts of *not offering the program* that go well beyond the fact that each participant would have been a non-participant. It would also remove activation as a tool for containing moral hazard. An important feature of welfare state economies is that the use of sanctions and duration limits in UI insurance, on the one hand, and the use of ALMPs, on the other, are intimately related, in the sense that the former would be politically unfeasible without the latter. Given that poverty-prevention has been declared a top priority, one simply cannot take families' basis of existence away without offering alternative income options.

In order to evaluate the overall impacts of "the degree of activation", a randomized controlled trial was conducted in Denmark 2005–2006: Individuals who became unemployed in two counties during this period were randomized into treatment and control groups, where members of the treatment group were exposed to much more intensive activation requirements (e.g., in the form of mandatory participation in job search assistance programs) than members of the control group. The experiment has been evaluated by Graversen and Van Ours (2008) and by Rosholm (2008). Both papers report large favorable activation effects. Graversen and Van Ours (2008), for example, report that the job finding rate was as much as 30% higher in the treatment group than in the control group. They also report that the effects of treatment were largest for individuals with the longest commute time to the program location, indicating that threat effects played an important role for the favorable outcome.

Given the relatively prominent role that threat effects seem to have in contributing to favorable evaluations of activation, it may be argued that the program activities themselves can be set up in a relatively cheap and minimalistic fashion. The desired effect may be achieved, e.g., simply by summoning claimants to consultations and by offering structured job search assistance. The potential effectiveness of such schemes is illustrated by Hägglund (2011), who evaluates a social experiment conducted in three Swedish counties in 2004, whereby unemployed job seekers were randomly assigned to different job-search assistance schemes, preceded by notification letters. A key finding of the paper is that even low intensity coaching assistance programs generated substantial increases in employment transitions *before* the start of the programs.

From a purely theoretical perspective, Kreiner and Tranæs (2005) show that if there are some *voluntarily* jobless individuals who claim benefits intended for the involuntarily unemployed, welfare can be improved by introducing workfare in the form of entirely unproductive activities. The pure “deterrence” effect of activation may even be enhanced if the “activities” are known to represent a complete waste of time. However, those who are worried about wasting their time are perhaps not among the key targets for the deterrence effect. And even though unproductive activities may improve welfare, it is likely that there exist productive activities that improve welfare more. If workfare becomes tantamount to waste, it is also a danger that the legitimacy of the activation strategy is undermined.

#### 4. Activation in disability insurance

Abstracting from the current recession, it is the inexorable rise in health-related benefit claims that has posed the most worrying challenge for policy makers in industrialized countries; see, e.g., Duggan and Imberman (2006), Bratsberg *et al.* (2010a), and Burkhauser and Daly (2011). Is the activation strategy also applicable for disability insurance programs? The empirical observation that there is a strong element of substitutability between unemployment and disability insurance programs, with job loss figuring as one of the most important explanations for disability program entry may suggest that the answer to this question is yes. Moreover, if governments choose to make unemployment insurance even more oriented towards activation, it is probable that some of the moral hazard problems associated with today's unemployment insurance will be shifted over to the disability insurance programs.

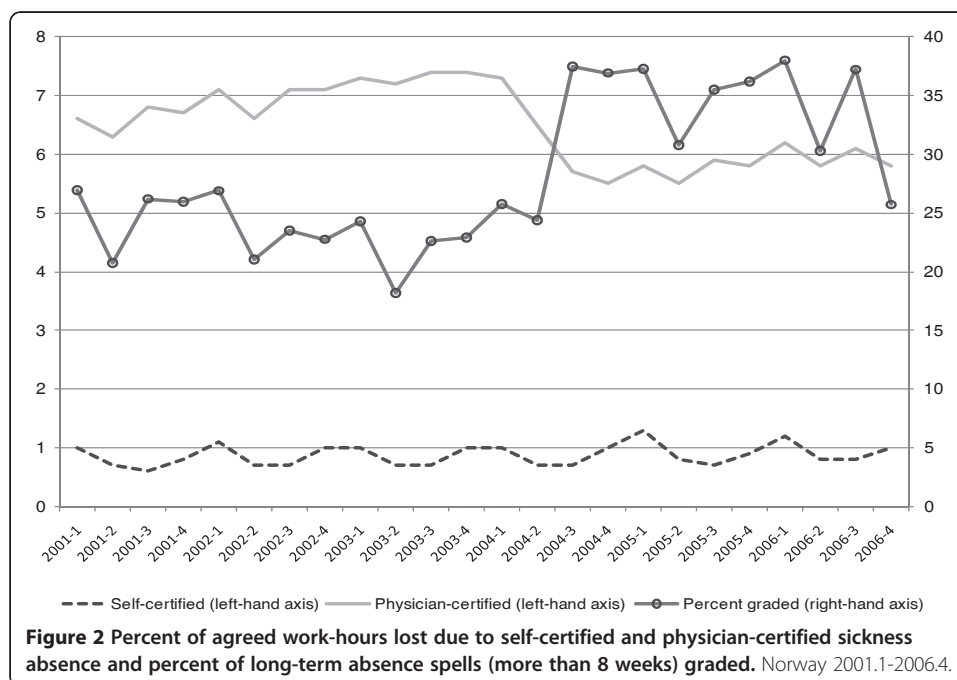
Should we design sickness/disability insurance programs such that they facilitate adapted work rather than inactivity? After all, individuals' work-capacity can rarely be characterized as either 0% or 100%. Work-capacity is more a question of *degree* than of *kind*. Sickness/disability sometimes reduces an individual's work-capacity, but it rarely eliminates it. Many countries – particularly the Nordic ones; see Kausto *et al.* (2008) – have in recent years made efforts to promote “partial” rather than “full” absence from work during workers' spells of sickness absence from work. The aim is not only to ensure the exploitation of the remaining work capacity during sick leave periods, but also to prevent subsequent relapses and transitions to permanent disability. The strategy is founded on three presumptions; i) that work is normally a healthy activity, even for workers with disabilities, ii) that long periods of inactivity tend to become self-enforcing and make it progressively more difficult to return to employment, and iii) that pressure to exploit the remaining work-capacity reduces moral hazard problems with respect to both employer and employee behavior.

In Norway, partial absence has been implemented by instructing physicians, who have the task of certifying absence spells, not only to declare whether an absent worker is really sick or not, but also to stipulate the *degree* of reduced work-capacity caused by the sickness/disability and, if relevant, prescribe the work-adaptations required to exploit the remaining work-capacity.<sup>7</sup> The employer is then obliged to allow the worker back to the workplace and facilitate modified work within reasonable limits, while the employee is – if necessary – obliged to accept changes in regular duties/tasks.<sup>8</sup> Graded sick leave then implies, for example, that if a worker's work-capacity is considered to be

temporarily reduced by 50 percent due to an illness, he/she is obliged to work at 50 percent capacity and entitled to the normal wage for this part. Sick-pay applies for the remaining 50 percent. Graded sickness insurance thus promotes *presenteeism*, i.e., that workers are present at their workplace even when they are sick, but of course only when the illness is non-infectious and otherwise compatible with work.

Graded absence certificates have over time become more common, and now account for around a third of long-term physician-certified absence spells in both Norway and Sweden. In Norway, the use of graded absence certificates was significantly stepped up in 2004, in response to a reform of the sickness certification guidelines, defining graded absence certificates as the norm after 8 weeks of absence. And, as can be seen from Figure 2, the increased use of graded absence certificates coincided with a significant drop in overall absenteeism.<sup>9</sup> Similar developments were seen in Sweden when the use of graded absence certificates was stepped up there during the period from 2002 to 2005.

Can we be sure that more intensive use of graded absence certificates really has a negative *causal* effect on overall absenteeism? And – perhaps even more important – that it also leads to lower social insurance dependency in the longer run? These questions are addressed by Markussen *et al.* (2012), who investigate the causal impacts of issuing graded rather than full-time sick leave certificates for workers in Norway who had been temporary disabled for at least 8 weeks. Since the use of graded (as opposed to full-time) absence certificates is anything but randomly assigned, the authors face an obvious endogeneity problem. This is handled by exploiting the variation in grading-propensity *across family physicians*, generating a significant source of random-assignment-like (from the employee's point of view) variation in the probability of being subject to activity requirements during spells of sickness. Based on an instrumental variables model, Markussen *et al.* (2012) conclude that the use of graded instead of non-graded sickness absence certificates reduces the length of absence spells, and



significantly improves the likelihood that the absentees are employed in subsequent years. The effects are large, both from an economic and a clinical perspective. Their most conservative instrumental variables estimates indicate that substituting a graded for a full-time absence certificate reduces the length of the absence spell by as much as 80–90 fulltime-equivalent days and also reduces social insurance claims the next two years – in terms of, e.g., new sickness or disability benefits – by around 80–85 days. Even more importantly, it raises employment propensity two years after by 16–18 percentage points.

Høgelund *et al.* (2010) study the impact of graded absence certificates in Denmark by means of a proportional hazard rate model, and use the timing-of-events approach (Abbring and Van den Berg, 2003) to identify the effect on absence duration. The results indicate that when a patient is given a graded instead of a non-graded absence certificate, it raises the weekly probability of returning to regular work hours by as much as 50 percent. Similar effects are found in a small randomized controlled trial in Finland (Viikari-Juntura *et al.* 2012). The experiment was conducted in six Finnish enterprises and encompassed 63 workers who were unable to perform their regular duties due to musculoskeletal disorders, and randomly allocated to either full-time or graded absence. The findings indicate that grading caused a 60 percent rise in the hazard rate to regular work activities, and also a 20 percent reduction in subsequent absenteeism during a one-year follow-up period.

Activation thus seems to be a hugely successful strategy for temporary disabled workers. This can be understood in terms of the moral hazard problems discussed above; i.e., that the participation requirement reduces the leisure component of disability insurance. But there is also an increasing stock of empirical evidence showing that work is actually a *healthy* activity for workers with the illnesses and symptoms responsible for the vast majority of disability cases in industrialized countries (musculoskeletal diseases, back pain, and light mental disorders); see, e.g., Waddell (2004), Waddell and Burton (2006), and OECD (2008, Chapter 4) for recent reviews of the literature. Somewhat related to this literature, Kuhn *et al.* (2010) show an increase in mortality among elderly workers who are pushed (against their will) into early retirement.

A possible reason for the apparent success of graded absence certificates in Norway is also that it contributes to containing some rather strong incentives for employers to refrain from reintegrating long-term sick employees in their active workforce. Like most OECD-countries, the Norwegian sick leave insurance program embodies a limited initial period of pay liability for the firms, after which the public insurance system covers the costs. This has the very unfortunate side-effect that once a worker's sickness absence spell has exceeded the pay liability period, it is potentially costly for the firm to allow that employee to take up work again, since, if a relapse occurs, the firm once again becomes financially responsible. Based on a reform in Norway which removed the pay liability for pregnancy-related absences, Fevang *et al.* (2011) show that this side-effect is empirically important. Physicians' use of graded absence certificates may in this context be viewed as a way of "forcing" firms to accept to take workers back before they are fully recovered and before the risk of a relapse has become negligible.

It is noteworthy that in the Netherlands –where employers now bear the full costs of a generous sick-leave insurance for as long as two years of absence – gradual take-up of work after sick-leave episodes is very common. A recent survey indicates that after

10 months of absence, more than 60 percent of sick-listed employees have taken up work partially (Everhardt and de Jong, 2011).<sup>10</sup> Hence, in the absence of incentive distortions, gradual re-integration into the workplace seems to be the rule rather than the exception in connection to long-term sickness.

### **5. Workfare or welfare – is the optimal dosage shifting over time?**

A given level of income insurance can be provided with or without activation requirements attached. As discussed above, activation requirements reduce moral hazard problems, but require more administrative resources and (possibly) higher costs associated with workplace adaptations and market distortions. How should these concerns be balanced? There is of course no universally valid answer to this question. But there are some important developments taking place suggesting that the optimal balancing point is gradually shifted toward activation.

The first of these is related to the positive trends in social insurance participation rates, particularly in disability insurance programs. In Norway, for example, the fraction of the working-age population claiming health-related social insurance benefits rose from 15.4% in 1994 to 20.3% in 2006; i.e., by 41% (Bratsberg and Røed, 2011), without any noticeable changes in the program. Although parts of this rise can be attributed to ageing of the population, most of it remains “unexplained”. At the same time, health surveys indicate general improvements in health conditions over the same period. This suggests that the threshold for claiming these benefits has been reduced over time, either because the “work ethic” has deteriorated or because the labor market has become more competitive and thus less accessible for individuals with reduced work capacity. In either case, the higher exploitation rates indicate that the average DI-triggering health problem has become less serious, and hence that the expected level of remaining work capacity has risen.

One possible explanation for the rising exploitation rates is that social insurance dependency is “contagious”, e.g., because it becomes less stigmatizing to be a benefit recipient when reciprocity is already widespread. This may be the source of what Lindbeck (1995) labeled “hazardous welfare-state dynamics”, whereby initially exogenous changes in exploitation rates are amplified over time through a social multiplier. Despite methodological difficulties, there is now convincing evidence that such multiplier effects are empirically important (Bertrand *et al.* 2000; Ichino and Maggi, 2000; Aizer and Currie, 2004; Hesselius *et al.* 2009; Åslund and Fredriksson, 2009; Rege *et al.* 2012; Markussen and Røed, 2012). This implies that the threat-related favorable effect of activation is not limited to the reduced reciprocity rates among the directly affected individuals – it also includes the knock-on effects on their peers.

A second important development, which is of particular relevance for European welfare state economies, relates to the opening up of labor markets to migration. There are now free movements of labor across 32 European countries. Some of these countries differ widely in terms of living standards, wages and prices. According to European law, entitlements to social insurance can be transferred between these countries and made operative in the country of current employment. This implies that if citizens from, say, low-cost countries like Lithuania and Poland, obtain work in high-cost countries like Norway or Denmark, they are immediately and fully covered the social

insurance arrangements in the host country (provided that they “bring with them” an employment history that corresponds to the host country’s eligibility requirements). And if they become benefit claimants later on, these benefits can be exported back to the origin country, where their purchasing power may be much larger than in the host country. In a recent report from the Norwegian “Welfare and migration commission” (NOU, 2011), it is estimated that the purchasing power of a Norwegian benefit payment is raised by 117% if it is exported to Poland. Given that Norwegian social insurance benefits typically pay at least 66% of Norwegian earnings, this implies a potential replacement ratio of 144%. The moral hazard problems associated with this system are rather obvious. There are currently large migration flows from poor low-cost countries to rich high-cost countries in Europe. And existing empirical evidence indicates that the longer-term labor market performance of labor migrants from low-cost to high-cost countries may be poor. Bratsberg *et al.* (2010b), for example, study the life-cycle employment patterns of labor migrants to Norway during the early 1970’s (from Pakistan, Turkey, India, and Morocco), and find that only 50% were still in employment in 2000 – compared to 84% for a native control group. 74% of those who had left the labor market received a disability pension. A subsequent study (Bratsberg *et al.* 2011) indicates that the pattern of quickly declining employment rates – and increasing social insurance dependency – is repeated for a number of later immigration waves.

Based on these observations, the Norwegian Welfare and migration commission (NOU, 2011) argued that a pure cash-based transfer system is no longer sustainable, and that the social insurance system thus needs to be much more tied to activation and labor market participation in the future.<sup>11</sup> A welfare system that offers disabled individuals (properly adapted) jobs rather than just a cash benefits are probably more robust with respect to the impacts of migration. If, say, the payment of *graded* disability benefits (<100%) are conditioned on the claimants’ willingness to accept work corresponding to their (still) remaining work capacity, such a system can effectively contain “welfare migration”.

## 6. Cyclical institutions?

Should social insurance institutions be designed such that important policy parameters – like the UI generosity and the overall scale of activation – are adjusted according to the state of the economy? In order to contain public deficits – which for obvious reasons has become a major priority in many countries – it may be tempting to reduce UI generosity and cut down on (costly) labor market programs in bad times. However, the value of social insurance clearly rises in a recession, and its role as an automatic macro-economic stabilizer also becomes more important. Hence, to the extent that public sector budget constraints can (still) be viewed as inter-temporal, the optimal policy responses to cyclical fluctuations may very well be to upgrade social insurance programs during recessions. Many countries also do so, most often on a discretionary basis. In response to the current “Great Recession”, for example, the maximum UI duration has in some U.S. states been extended from 26 to 99 weeks; see OECD (2011).

Cyclical fluctuations not only imply that the value of income insurance and activation changes; the associated costs – in terms of disincentive and lock-in effects – may also change. At this point, the literature is relatively sparse. Intuitively, one may perhaps



argue that the costs of both unemployment insurance and activation are likely to be low during recessions, since there are no regular jobs to be had anyway, and thus small costs associated with distorted search incentives and ALMP lock-in. If this is true, there is no inherent conflict between insurance and disincentives with respect to the way UI institutions adapt to business cycle fluctuations; both concerns suggest that UI generosity should be stepped up in bad times. Recent evaluations of the expansions of UI benefit durations in the U.S., for example, indicate that the behavioral impacts of these expansions were small (Rothstein, 2011; Farber and Valletta, 2011), at least relative to their important role in stabilizing aggregate demand. In relation to the cyclicalities of ALMPs, things may be slightly more complicated, since there is evidence that both the costs and the benefits display pro-cyclical patterns (see below).

Andersen and Svarer (2011) examine the cyclicalities of UI distortions within the framework of standard search theory. A key finding is that job search efforts are pro-cyclical, and that this causes the UI-generated distortion to be pro-cyclical as well. As a consequence, UI generosity should be countercyclical. Existing empirical evidence on the cyclicalities of UI distortions is sparse, although research in this area has been boosted by the Great Recession. Findings for the US and the UK indicate that disincentive effects are indeed pro-cyclical; see Moffitt (1985) and Arulampalam and Stewart (1995), and, more recently, Kroft and Notowidigdo (2011). Findings for Norway, based on the relatively limited labor market fluctuations experienced in this country, indicate that the disincentive effect of the UI *level* on the transition rate to employment is close to non-cyclical (Røed and Zhang, 2003, 2005). Recent findings for Germany also indicate that the disincentive effect of UI *duration* is close to being non-cyclical, perhaps with a small (but not statistically significant) indication of pro-cyclicalities (Schmieder *et al.* 2012).

A potential danger with counter-cyclical UI is that it also stifles entrepreneurship, which is of particular value to society during recessions. Evidence from both Sweden and Norway indicates that joblessness is actually among the key drivers of entrepreneurial behavior in these countries; see Von Greiff (2009) and Røed and Skogstrøm (2010). The latter of these studies finds that more than half of the transitions from regular employment to entrepreneurship in Norway are directly caused by involuntary job loss. There is thus a potential for transforming the job losses emanating from a recession into the establishment of new firms and new jobs. But, while *individual* unemployment encourages entrepreneurship, *aggregate* unemployment discourages it (Berglann *et al.* 2011); hence in order to take the full advantage of the entrepreneurship potential associated with job losses during cyclical downturns, labor market policies should probably be particularly designed to prioritize job *creation* in bad times.

Since the value of job search is lower in a recession than in a boom, a recession also reduces the opportunity cost of activation. If, on the other hand, the disincentive effects of UI are smaller in a recession, the need for activation as a tool to combat moral hazard problems may also be less acute. Moreover, there is evidence that the favorable effects of actual participation in ALMP – on the exit rate from unemployment as well as on long-term employment outcomes – are pro-cyclical; see Røed and Raaum (2006) and Lechner and Wunsch (2009). It also seems plausible that activation-requirements have more clout when jobs are plentiful than when they are scarce. In the words of Blank (2003), “it’s very useful to have a strong macroeconomy if you want to implement work-oriented welfare reform”.

There are also two other arguments that point towards maintaining a significant level of activation even in good times. The first is that the *composition* of unemployed job seekers become more negatively selected – in terms of their individual employment prospects – in good times; see Gaure and Røed (2007) and Forslund *et al.* (2011). Thus, relative to the total number of unemployed, there are more job seekers in need of skills-upgrading in good than in bad times. In addition, existing empirical evidence shows that persons with poor individual employment prospects also have more to gain from actually participating in activation; i.e., they have larger positive effects (Røed and Raaum, 2006). The second argument is that it is administratively costly to scale the level of activation quickly up and down according to cyclical fluctuations. If there is a significant level of activation in place even in good times, employment services will be better prepared to take care of the influx of new job seekers that typically accompany a recession. This does of course not imply that the contents of ALMPs should be the same regardless of the cyclical situation; employment services should probably focus more strongly on search-oriented programs in good times, when there are many available jobs to be had. During recession, on the other hand, programs should probably focus more strongly on skills-upgrading (since lock-in costs are lower) and on the establishment of new firms.

Based on these considerations, I will argue that there are good reasons to make UI generosity counter-cyclical – particularly in countries with very low maximum UI duration under normal business cyclical conditions. The degree of activation should be maintained at a high level regardless of the cycle, probably implying that the *fraction* of activated job seekers rises in good times.

What about activation strategies in disability insurance (DI) programs? Since an important aim of these strategies is to raise the overall level of labor supply, it may be argued that such policies should be scaled down in periods of insufficient labor demand. Why make costly efforts to provide job opportunities for workers with disabilities when even persons without health problems cannot find work? There is an important caveat to this argument however, namely that the moral hazard problems in disability insurance programs probably become more severe in cyclical downturns. The reason is that they then serve as an alternative channel for downsizing (Rege *et al.* 2009), particularly in welfare states with strong employment protection legislation. It may of course be argued that it doesn't really matter whether redundant workers receive unemployment or disability benefits. However, in the long term it may matter quite a lot, since disability insurance programs – in contrast to unemployment insurance programs – tend to be absorbing. Due to the lack of incentives and the almost complete lack of eligibility reconsiderations, very few workers return to the labor market after having claimed time-unlimited disability benefits. Hence, the adverse *long-term* effects of a cyclical downturn is likely to be larger the more redundant workers were channeled into disability insurance rather than unemployment insurance during the crisis.

An important lesson from past recessions is that *cyclical* unemployment can easily be transformed to equilibrium (natural) unemployment by changing search behavior, skills, or wage formation on a lasting basis, implying that unemployment fails to return to its pre-recession level even when the recession is over. This form of path-dependence – or ratchet effect – is sometimes referred to as *hysteresis*. Empirical evidence has indicated

that hysteresis problems are of particular importance for welfare state economies; see Røed (1997) for a review. A number of hysteresis-mechanisms have been proposed in the literature, and in some of them the social insurance institutions are attributed a key role. In particular, it has been argued that human capital – just like physical capital – depreciates in the absence of regular maintenance, and that long-term unemployment has a demoralizing effect on job search behavior. Hence, the longer the insurance system allows for inactivity, the more difficult it will be to become reintegrated in the labor market. A particular problem arises if the job seekers' expected (potential) earnings deteriorate while at the same time their UI payments are proportional to past earnings, in which case the incentives for returning to work become weaker over time (Ljungqvist and Sargent 1998).

The evidence reviewed in the present paper – showing that joblessness not only produces long-term unemployment, but also disability insurances recipients – clearly implies that the hysteresis problem may be even more serious than indicated by ratcheting unemployment rates. If human capital deteriorates during long-term idleness, a sufficient level of activation may not only be required to discourage social insurance dependency and encourage self-sufficiency “today”, but also to prevent the number of disability claimants from rising in the future.

## 7. Concluding remarks

Balancing the objectives of appropriate social insurance and sufficient work-incentives is a difficult task. For unemployment insurance and social assistance programs, policy makers in many countries have to an increasing extent resorted to various *activation strategies*, essentially requiring benefit claimants to participate in temporary employment or training programs. The key idea behind this strategy – with potential appeal to the political right as well as to the left – is that by pairing insurance with activity requirements it becomes possible to partly escape the unpleasant tradeoff between equality and/or consumption smoothing, on the one hand, and work incentives, on the other; i.e., it facilitates a reduction of the moral hazard problem, given the level of insurance, or, alternatively, to improve the insurance coverage, given the level of moral hazard. Experiences from the Scandinavian countries – which from time to time have combined relatively generous social insurance payment levels with strict activation requirements – indicate that activation is an effective tool for containing moral hazard problems. For claimants who do not really need the benefit, “threatening” with activation seems to have basically the same effect on their behavior as threatening to take away their benefits altogether. Actual participation in labor market programs has more ambiguous effects on the participants' future labor market outcomes; some studies indicate positive effects – others indicate negative or no effects. However, properly designed, it should be possible to ensure that program participation represents a net value added even during the participation period. Job search is very much about “waiting” – it is difficult to fill the task of job search with meaningful activities 8 hours a day.<sup>12</sup> Activation not only aims at shortening the waiting period, but also to ensure that a given waiting period is put to better use.

There may be good reasons to adjust parameters of unemployment insurance systems in response to cyclical fluctuations. In particular, countries with relatively short

maximum durations in their UI benefit programs should probably extend them during recessions, both to ensure their ability to play the intended roles as automatic stabilizers and as consumption smoothing devices, and (possibly) to take advantage of pro-cyclical disincentive effects of UI. Given that the activation strategy has been attributed a major role in containing moral hazard problems in UI systems, it is obviously necessary to step up the use of active labor market programs in times of recession. I have argued, though, that cyclical fluctuations should probably not be fully accommodated by changes in the activity level, implying that the fraction of unemployed job seekers who participate in activation should be (slightly) pro-cyclical, at least conditional on unemployment duration. There are at least four reasons for this: i) Programs tend to have larger positive effects in good times; ii) the group of unemployed job seekers is more negatively selected in good times (and persons with poor employment prospects tend to have more to gain from ALMP participation); iii) the moral hazard problems in UI are, at least according to some studies, larger in good times; and iv) there are significant administrative costs associated with scaling ALMPs up and down according to cyclical fluctuations.

The activation approach that has permeated many countries' strategies towards unemployment may fruitfully be carried over to disability insurance. Recent evidence from the Scandinavian countries suggests that requiring sick/disabled individuals to exploit their remaining (reduced) work capacity significantly reduces moral hazard problems in temporary disability (sick leave) insurance. And, since work is normally a healthy activity – even for individuals with musculoskeletal diseases, back pain, or mental disorders – it also has the potential of improving health. I have argued that there is a large “grey area” between unemployment and disability. With less than full work capacity it is obviously difficult to find a job without at the same time being willing to accept less than a full wage. What is missing in most industrialized countries are disability insurance programs that are designed to deal with partial disabilities – and an accompanying strategy to ensure that the labor market is open to persons with such disabilities. Existing empirical evidence shows that disabilities are often triggered by job loss; hence, when the Great Recession (hopefully) comes to its close, we may expect to find that it has left behind a challenging disability problem.

## Endnotes

<sup>1</sup>In some countries, such as Denmark and Sweden, it also used to be the case that ALMP participation counted as normal employment in the criteria for UI eligibility; hence the systems opened up for “perpetual” cycles of program participation and open unemployment.

<sup>2</sup>It is of interest to note here that evaluations of the reforms of the cash-based welfare program for single mothers in the U.S. in 1996 also singles out the “screening effect” as being empirically important; see Moffitt (2007) for a review. Implementation of the Personal Responsibility and Work Opportunity Act (PRWORA) implied the imposition of work-requirements, backed up by sanctions and time limits. The reform coincided with a significant drop in caseloads, primarily caused by reduced entry. Moffitt (2007) points out that the decline in entry probably resulted from the lower attractiveness of welfare benefits caused by, *inter alia*, increased work-requirements and sanctions.

<sup>3</sup>Note that the “overall” maximum UI duration was not increased through this reform, but the potential duration of “passive” benefit reciprocity was extended from 80 to 156 weeks. In the pre-reform system, a single UI period could not exceed 80 weeks, but it was possible to apply for an additional 80 week-period afterwards. It was common to use ALMP as a sort of work-test at this point. The post-reform system implied a removal of this 80-week check (which served as an example of what I have labeled a “soft constraint”) and coincided with a significant reduction in the scale and scope of ALMPs. The maximum UI period has later (2003) been reduced to 104 weeks.

<sup>4</sup>It is notable that research in this area has had a very direct effect on actual policy in Denmark, and the findings referred to in this section have motivated significant reductions in the duration of the maximum “passive” periods; see Andersen and Svarer (2012).

<sup>5</sup>Strong threat effects of ALMP's in Denmark have also been reported by Geerdsen (2006), but these results have later been challenged by Graversen and Larsen (2012) on the grounds that they relied on incorrect coding and modeling setup. It should be noted, however, that even Graversen and Larsen (2012) find evidence of significant threat effects, although much smaller than those reported by Geerdsen (2006).

<sup>6</sup>This conclusion obviously depends on assumptions about the duration of the added employment spells and of the 2.5% earnings premium. Gaure *et al.* (2012) provide a simulation-based cost-benefit-analysis were they assume that all effects are washed out five years after unemployment entry. The benefit side then consists of 2 percentage point higher employment (of varying lengths) and 2.5% higher earnings during employment spells (until they are terminated by the simulation model or censored after five years). The cost side consists of forgone earnings during the one-month longer unemployment spell (approximately 25,000 NOK) and administrative expenses (approximately 21,000 NOK).

<sup>7</sup>A similar arrangement is now in place in the UK, in the form of the so-called *fit note*. In the fit note, physicians are requested to certify whether a sick worker is unfit or (potentially) fit for work. In the latter case doctors may recommend reduced hours or duties, and provide recommendation to employers on how they can help the worker back to ordinary work.

<sup>8</sup>If the firm does not comply with these rules, sick pay refunds may be rejected by the Social Security Administration. If the worker does not comply, he/she may lose the entitlement to sick pay. During periods of sickness absence, Norwegian workers enjoy a special protection against dismissals, implying that they cannot be dismissed on grounds that are related to their sickness. The burden of proof is considered to lie with the firm, in practice implying that absent workers can only be laid off as part of a mass displacement.

<sup>9</sup>According to an empirical evaluation (Markussen, 2009), the reform caused a drop in overall absenteeism close to 20%. Reduced incidence accounted for one third of the effect, while the remaining two thirds were due to shorter durations. Note, however, that the reform contained several (minor) changes in the certification regulations, implying that it is difficult to identify precisely the part of the effect that is attributable to increased use of graded absence certificates; see Markussen (2009) for details.

<sup>10</sup>This number is not reported directly in their article, but has been provided to me by the authors.

<sup>11</sup>The Welfare and migration commission was appointed by the Norwegian government to assess the Norwegian welfare state's robustness with respect to the opening of labor markets and other aspects of internationalization/globalization. It published a so-called "Official Norwegian Report" in May 2011. I was a member of the commission.

<sup>12</sup>Based on time use studies, Krueger and Mueller (2010) show that the average U.S. unemployed worker devotes about 41 minutes to job search on weekdays.

#### Competing interests

The IZA Journal of Labor Policy is committed to the IZA Guiding Principles of Research Integrity. The author declares that he has observed these principles.

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